

Serial Number: 09/284,690

Group Art Unit: 1764

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AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)

2. (Currently amended): ~~An apparatus for the pyrolysis of waste, comprising:~~

~~—— a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in combination with a truncated cone rotating on the same axis, said truncated cone having a large base and a small base, said large base and said small base each having a diameter, the diameter of said cylinder being larger than the diameter of said large base of said truncated cone, and a region extending between said large base of said truncated cone and said end of said cylinder which is adjacent to said large base of said truncated cone,~~

~~—— said region forming a retaining threshold resulting from a difference between the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used in the truncated cone as fuel for pyrolysis of the waste~~ The apparatus of claim 17, further comprising a hopper for charging the waste at one end of said cell, an ash box at the other end of said cell, and a recovery chimney, in connection with said cell, for recovering gases from said cell.

3. (Canceled)

4. (Previously presented) The apparatus according to Claim 2, wherein the truncated cone further comprises a network of nozzles fed via channels distributing combustion air in a substoichiometric amount, thereby combusting the coke which is used as fuel in the pyrolysis of

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the waste.

5-15. (Canceled)

16. (Previously presented): The apparatus according to Claim 2, wherein said region comprises a conical section positioned between said cylinder and said truncated cone.

17. (Currently amended): An apparatus for the pyrolysis of waste, comprising:

a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in combination with a truncated cone rotating on the same axis, said truncated cone having a large base and a small base, said large base and said small base each having a diameter, the diameter of said cylinder being larger than the diameter of said large base of said truncated cone, and a region extending between said large base of said truncated cone and said end of said cylinder which is adjacent to said large base of said truncated cone,

said region forming a retaining threshold resulting from a difference between the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used in the truncated cone as fuel for pyrolysis of the waste,

wherein a main longitudinal axis of the rotating cell is inclined with respect to the horizontal.

18. (Previously presented): The apparatus according to Claim 17, wherein said region comprises a conical section positioned between said cylinder and said truncated cone.

19. (Currently amended) ~~The apparatus according to Claim 17~~ An apparatus for the pyrolysis of waste, comprising:

a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in

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combination with a truncated cone rotating on the same axis, said truncated cone having a large base and a small base, said large base and said small base each having a diameter, the diameter of said cylinder being larger than the diameter of said large base of said truncated cone, and a region extending between said large base of said truncated cone and said end of said cylinder which is adjacent to said large base of said truncated cone,

said region forming a retaining threshold resulting from a difference between the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used in the truncated cone as fuel for pyrolysis of the waste,

wherein the truncated cone further comprises a network of nozzles fed via channels distributing combustion air in a substoichiometric amount, thereby combusting the coke which is used as fuel in the pyrolysis of the waste.

20. (Currently amended) The apparatus according to Claim 2 19, ~~wherein a recovery chimney is placed on the cylinder in the rotating cell~~ further comprising a hopper for charging the waste at one end of said cell, an ash box at the other end of said cell, and a recovery chimney, in connection with said cell, for recovering gases from said cell.

21. (Currently amended) The apparatus according to Claim 2 23, ~~wherein the truncated cone further comprises a network of combustion air distribution nozzles~~ further comprising a hopper for charging the waste at one end of said cell, an ash box at the other end of said cell, and the recovery chimney, in connection with said cell, for recovering gases from said cell.

22. (Currently amended) The apparatus according to Claim 2 24, ~~wherein a main longitudinal axis of the rotating cell is inclined with respect to the horizontal~~ further comprising a

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hopper for charging the waste at one end of said cell, an ash box at the other end of said cell, and a 2004 AUG 20 PM 2: 42
recovery chimney, in connection with said cell, for recovering gases from said cell.

23. (Currently amended) ~~The apparatus according to Claim 17~~ An apparatus for the
pyrolysis of waste, comprising:

a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in
combination with a truncated cone rotating on the same axis, said truncated cone having a large
base and a small base, said large base and said small base each having a diameter, the diameter of
said cylinder being larger than the diameter of said large base of said truncated cone, and a region
extending between said large base of said truncated cone and said end of said cylinder which is
adjacent to said large base of said truncated cone,

said region forming a retaining threshold resulting from a difference between the diameter
of the cylinder and the diameter of the large base of the truncated cone and creating a region of
intimate contact of the waste with itself whereby the waste is converted into coke which is used in
the truncated cone as fuel for pyrolysis of the waste,

wherein ~~said~~ a recovery chimney is placed on the cylinder in the rotating cell.

24. (Currently amended) ~~The apparatus according to Claim 17~~ An apparatus for the
pyrolysis of waste, comprising:

a rotating cell formed of a cylinder, said cylinder having a diameter and two ends, in
combination with a truncated cone rotating on the same axis, said truncated cone having a large
base and a small base, said large base and said small base each having a diameter, the diameter of
said cylinder being larger than the diameter of said large base of said truncated cone, and a region
extending between said large base of said truncated cone and said end of said cylinder which is

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adjacent to said large base of said truncated cone,

_____ said region forming a retaining threshold resulting from a difference between the diameter of the cylinder and the diameter of the large base of the truncated cone and creating a region of intimate contact of the waste with itself whereby the waste is converted into coke which is used in the truncated cone as fuel for pyrolysis of the waste,

wherein the truncated cone further comprises a network of combustion air-distribution nozzles.

25. (Currently amended) The apparatus according to Claim ~~47~~ 19, wherein a main longitudinal axis of the rotating cell is inclined with respect to the horizontal.